REMARKS

The Office Action dated June 18, 2008 has been reviewed and carefully considered. Claims 1 -10 remain present in the application, with claim 1 being the only independent claim. Reconsideration of the above-identified application, as amended and in view of the following remarks, is respectfully requested.

Paragraph 1 of the Office Action correctly notes that while claims labeled 10 and 11 had been filed with the application, no claim 9 had been provided. The Office Action goes on to state "Misnumbered claims 10 and 11 have been renumbered 9 and 10." The listing of claims in this amendment reflects these changed numbers.

Claims 1-10 stand rejected under 35 USC 102(e) as being anticipated by Nicolas et al., U.S. Patent No. 7,139,423 (Hereinafter "Nicolas"). Applicants respectfully traverse.

Nicolas et al. teaches building a three-dimensional scene by analyzing a sequence of images. As stated in his description:

> ... The domain is that of the processing of image sequences and the modelling of real static scenes in a navigation context. The sequence consists of images relating to static scenes within which the viewpoint, that is to say the camera, changes.
>
> **The objective is to allow a user to navigate virtually in a real scene.** [emphasis added] (col. 1, lines 17-21).

Nicholas addresses the problem in the prior art that such virtual navigation requires a significant amount of data. His invention uses masks and weightings to reduce the amount of data content (e.g., "These operations therefore make it possible to identify and eliminate the inter-image redundancy by retaining only the pixels of best relevance" (col. 6, lines 16-18)).

Claim 1, the sole independent claim of the present invention, recites:

Method for acquiring a substantially complete depth map from a 3-D scene with the steps of:

a) acquiring partial depth map from said 3-D scene,

b) acquiring derivates of depth information from said scene,

c) extending said partial depth map by adding non-relevant information to said partial depth map, creating a pixel dense full depth map being spatially consistent with both said partial depth map and said derivates of depth information

The Office Action points to Fig. 1, Step 1 and col. 3, lines 23-25 of Nicolas as teaching step a) of claim 1. The cited passage addresses "an image sequence acquired by a camera moving within a real static scene." As illustrated in Fig. 1 of the present invention, the partial depth map is capable of being acquired by a stationary camera. Moreover, the paragraph in Nicolas which precedes the quoted passage states:

We assume that by suitable processing, known from the prior art, we obtain, for each viewpoint, its 3D position in a reference frame associated with the scene (position and orientation of the viewpoint), **as well as a depth map associated with the image relating to the viewpoint** [emphasis added]. The object of the

next phase is to construct a compact representation of all of these data which is suitable for navigation.

While applicants do not concede their invention is "prior art" with respect to the above Nicolas passage, it is clear that Nicolas uses, as a starting point, a depth map associated with an image. The present invention is within this category of methods that determine a depth map of an image. Accordingly, it is unclear how Nicolas, who fails to teach this step (and merely concedes its existence), can teach the present invention.

Further, with respect to element c) of claim 1, the Office action points to Fig. 1, step 7 and corresponding col. 6, lines 42-45; and Fig. 1, step 8 and corresponding col. 4, lines 61-64 as teaching this aspect of the claim. Step 7 is part of a feedback loop that is used "in order to refine the calculated relevance values. At each iteration, the weights and therefore the relevance values are recalculated from the masks obtained at the previous iteration" (col. 6, lines 42 - 45). Further, with respect to Step 8:

> The iterative procedure is stopped after a predetermined number of iterations or when there are no longer any significant changes in the masks. Once these definitive masks have been obtained, step 8 follows step 7 and these masks are used in the phase of constructing the faceted 3D model, the construction being carried out on the basis of only the selected pixels defined by these masks. (col. 6, lines 58-64)

Accordingly, Nicolas uses his relevance values to attain his goal of reducing data content in virtual navigation in a real scene. That is, and as noted earlier: "These operations therefore make it possible to identify and eliminate the inter-image

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redundancy by retaining only the pixels of best relevance" (col. 6, lines 16-18). Clearly, Nicolas' use of "relevance values" is distinguishable from the step of claim 1 wherein non-relevant information is used to complete a depth map from a 3-D scene. Moreover, this further demonstrates that the invention of Nicolas essentially begins with the output of the present invention – a depth map of a 3-D scene. Nicolas fails to teach the features of the present invention whereby that depth map is created.

A claim is anticipated only if each and every element recited therein is expressly or inherently described in a single prior art reference. Nicolas cannot be said to anticipate the present invention, because Nicolas fails to disclose each and every element recited. As shown, Nicolas, *inter alia*, fails to disclose a method for acquiring a substantially complete depth map from a 3-D scene which comprises the step of "extending said partial depth map by adding non-relevant information to said partial depth map, creating a pixel dense full depth map being spatially consistent with both said partial depth map and said derivates of depth information."

Having shown that Nicolas fails to disclose each and every element claimed, applicant submits that claim 1 is allowable over Nicolas. Applicants respectfully request reconsideration, withdrawal of the rejection and allowance of claim 1.

With regard to claims 2-10, these claims ultimately depend from claim 1, which has been shown to be not anticipated and allowable in view of the cited references. Accordingly, 2-10 are also allowable by virtue of their dependence from an allowable

base claim. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

. For all the foregoing reasons, it is respectfully submitted that all the present claims are patentable in view of the cited references. A Notice of Allowance is respectfully requested.

Respectfully submitted,

Dan Piotrowski
Registration No. 42,079

By: Thomas Onka
Attorney for Applicant
Registration No. 42,053

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Mail all correspondence to:
Dan Piotrowski, Registration No. 42.079
US PHILIPS CORPORATION
P.O. Box 3001
Briarcliff Manor, NY 10510-8001
Phone: (914) 333-9624.
Fax: (914) 332-0615